

## 1      Claims

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3      1.    Use of a sortase gene product as a purification  
4           tag.

5

6      2.    Use of a sortase, e.g srtA, gene product as an  
7           immunogen.

8

9      3.    The use according to claim 1 or claim 2 wherein  
10           the sortase gene product is a *Staphylococcus*  
11           aureus srtA gene product.

12

13     4.    The use according to any one of claims 1 to 3  
14           wherein the sortase gene product is encoded by  
15           the nucleotide sequence shown in Figure 4 or a  
16           variant or fragment thereof.

17

18     5.    The use according to any one of claims 1 to 4  
19           wherein the sortase gene product comprises  
20           amino acids 26 to 171 of the SrtA sequence  
21           shown in Figure 4 or a variant or fragment  
22           thereof.

23

24     6.    An expression construct for the production of  
25           recombinant polypeptides, which construct  
26           comprises an expression cassette consisting of  
27           the following elements that are operably  
28           linked: a) a promoter; b) the coding region of  
29           a DNA encoding a sortase gene product as a  
30           purification tag sequence; and c) a cloning  
31           site for receiving the coding region for the

- 1 recombinant polypeptide to be produced; and d)  
2 transcription termination signals.  
3
- 4 7. The expression construct according to claim 6  
5 wherein the sortase gene product is a  
6 *Staphylococcus aureus* srtA gene product.  
7
- 8 8. The expression construct according to claim 6  
9 or claim 7 wherein the sortase gene product is  
10 encoded by the nucleotide sequence shown in  
11 Figure 4 or a variant or fragment thereof.  
12
- 13 9. The expression construct according to any one  
14 of claims 6 to 8 wherein the sortase gene  
15 product comprises amino acids 26 to 171 of the  
16 SrtA sequence shown in Figure 4 or a variant or  
17 fragment thereof.  
18
- 19 10. A method for producing a polypeptide,  
20 comprising:  
21 a) preparing an expression vector for the  
22 polypeptide to be produced by cloning the  
23 coding sequence for the polypeptide into the  
24 cloning site of an expression construct as  
25 claimed in any one of claims 6 to 9;  
26 b) transforming a suitable host cell with the  
27 expression construct thus obtained; and  
28 c) culturing the host cell under conditions  
29 allowing expression of a fusion polypeptide  
30 consisting of the amino acid sequence of the  
31 purification tag with the amino acid sequence

- 1 of the polypeptide to be expressed covalently  
2 linked thereto; and d) isolating the fusion  
3 polypeptide from the host cell or the culture  
4 medium by means of binding the fusion  
5 polypeptide present therein through the amino  
6 acid sequence of the purification tag.  
7
- 8 11. The method according to claim 10, wherein the  
9 sortase gene product is a *Staphylococcus aureus*  
10 *srtA* gene product.  
11
- 12 12. The method according to claim 10 or claim 11  
13 wherein the sortase gene product is encoded by  
14 the nucleotide sequence shown in Figure 4 or a  
15 variant or fragment thereof.  
16
- 17 13. The method according to any one of claims 10 to  
18 12 wherein the sortase gene product comprises  
19 amino acids 26 to 171 of the *SrtA* sequence  
20 shown in Figure 4 or a variant or fragment  
21 thereof.  
22
- 23 14. A fusion polypeptide obtained by the method of  
24 any one of claims 10 to 13.  
25
- 26 15. A purification tag comprising a sortase gene  
27 product.  
28
- 29
- 30 16. The purification tag according to claim 15  
31 wherein the gene product is a *Staphylococcus*

1 aureus srtA gene product.

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4 17. The purification tag according to claim 15 or  
5 claim 16 wherein the sortase gene product is  
6 encoded by the nucleotide sequence shown in  
7 Figure 4 or a variant or fragment thereof.

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9 18. The purification tag according to any one of  
10 claims 15 to 17 wherein the sortase gene  
11 product comprises amino acids 26 to 171 of the  
12 SrtA sequence shown in Figure 4 or a variant or  
13 fragment thereof.

14

15 19. A method of inducing and/or enhancing an immune  
16 response to an antigen of interest, the method  
17 comprising administering the antigen of  
18 interest with a sortase, e.g srtA, gene  
19 product.

20

21 20. The method according to claim 19, wherein the  
22 sortase gene product is a Staphylococcus aureus  
23 srtA gene product.

24

25 21. The method according to claim 19 or claim 20  
26 wherein the sortase gene product is encoded by  
27 the nucleotide sequence shown in Figure 4 or a  
28 variant or fragment thereof.

29

30 22. The method according to any one of claims 19 to  
31 21 wherein the sortase gene product comprises

1 amino acids 26 to 171 of the SrtA sequence  
2 shown in Figure 4 or a variant or fragment  
3 thereof.  
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